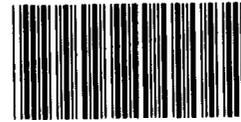


September 1992

# FINANCIAL MANAGEMENT

## DOT's Accounting and Financial Information System Can Be Improved



147692

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**Resources, Community, and  
Economic Development Division**

B-249359

September 22, 1992

The Honorable Frank R. Lautenberg  
Chairman  
Subcommittee on Transportation  
Committee on Appropriations  
United States Senate

The Honorable William Lehman  
Chairman  
Subcommittee on Transportation  
and Related Agencies  
Committee on Appropriations  
House of Representatives

In fiscal year 1992, the Department of Transportation (DOT) had an estimated budget exceeding \$36 billion to pay for hundreds of diverse activities including grants for mass transit and contracts for marine navigation and air traffic control improvements. Since 1984 DOT has been involved in a major effort to help track these funds by developing a single Departmental Accounting and Financial Information System (DAFIS). The goals that DOT set for DAFIS were to (1) consolidate numerous and inefficient accounting systems into one departmentwide system, (2) correct existing accounting weaknesses related to disbursing payments and collecting debts, and (3) provide managers and the Congress with better information to oversee programs and operations.

Given DAFIS' importance in tracking DOT's budget and its cost—estimated to be at least \$26.4 million—you asked us to review DAFIS' installation status and cost and the extent to which the system is achieving DOT's goals.

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**Results in Brief**

The timetables for the departmentwide installation of DAFIS have slipped from 1991 to 1993, and costs have increased from the initial \$17.6 million estimate to \$26.4 million. DOT has made progress in achieving the first two goals set for DAFIS but has made little progress toward its third goal of providing better management information. At its current rate of progress, DOT will not achieve the goals set for DAFIS by 1993, and it is likely that costs will increase above the projected \$26.4 million.

With regard to its first goal of consolidating numerous and inefficient accounting systems into DAFIS, DOT has reduced its accounting systems

from 14 in 1987 to 7 in July 1992. However, at the end of planned installation in 1993, DOT will still have four accounting systems rather than its objective of one consolidated accounting system.

DOT has also made progress in meeting its second goal of correcting accounting weaknesses. For instance, DAFIS provides an automated capability that allows for timely disbursements of over 5,000 daily payments and bill preparation for effective debt collection. Despite these improvements, some accounting issues still need to be resolved. For example, DAFIS does not provide the United States Coast Guard (USCG) with the capability to bill certain of its internal customers.

The Department has made little progress in achieving DAFIS' third goal of providing DOT managers and the Congress with financial information to oversee programs and operations. Managers cannot use DAFIS for such things as tracking detailed financial information from prior years on long-term projects and for generating timely spending reports for project management. For instance, Federal Aviation Administration (FAA) managers cannot use DAFIS for promptly responding to congressional requests for information on spending trends of air traffic control modernization projects, such as the \$5.1 billion Advanced Automation System (AAS). Because of DAFIS' limitations, DOT continues to operate separate automated systems to obtain more timely information on spending. These separate systems cause inefficiencies, such as duplicate data entry, which delay the processing of data into DAFIS.

DOT recognizes that it needs to do more in order to achieve the three goals that it set for DAFIS. However, after 5 years of developing the system, DOT does not have a strategy which maps out the timetables and resources needed to achieve these goals, remove inefficiencies, and integrate DAFIS with the many other subsidiary financial systems that managers use to carry out their responsibilities. As a result, DOT does not know when these changes will occur or the estimated costs associated with bringing them about.

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## Background

Many of DOT's previous accounting systems had been characterized in consultant and departmental internal studies as being poorly designed, inefficiently operated, and plagued with problems. In 1987 DOT had 14 separate accounting systems, including 6 that were operated by USCG. In addition to its accounting systems, DOT also operated over 100 subsidiary

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financial systems for a wide range of needs from tracking inventories and property to managing grants and projects.

In December 1984 the Office of Management and Budget (OMB) issued Circular A-127, which set policies for federal agencies to establish a single integrated financial management system that may be supplemented by subsidiary systems. OMB Circular A-127 emphasizes that agency leadership must be involved in improving financial systems and stresses that systems meet the financial needs of all users, including budget, program, and accounting managers. In response, DOT began developing a plan for a single system.

In April 1987 the Secretary of Transportation decided to modify and enhance FAA's accounting system so that it would become the departmentwide accounting and financial information system known as DAFIS. In December 1987 DOT's Assistant Secretary for Administration, who is responsible for overseeing DAFIS' development, notified OMB that DAFIS was intended to replace the many existing accounting systems, enhance DOT's disbursement and collection capabilities, and improve financial management by incorporating program fund control systems within DAFIS.<sup>1</sup> Additionally, the Assistant Secretary for Administration said that DAFIS would provide managers and the Congress with better financial information to support costs, manage resources, and measure performance.

In 1990 the Congress passed the Chief Financial Officers (CFO) Act (P.L. 101-576) to improve federal financial management. The act established CFO positions within major agencies, such as DOT. In addition to other financial management responsibilities, these top managers are responsible for (1) upgrading financial management systems; (2) identifying, in 5-year financial system improvement plans, the actions to eliminate duplicative and unnecessary systems; and (3) designing and promoting the use of performance measures to assess programs and operations.

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## Installation Status and Cost Projections

DAFIS is operating in 7 of the 10 organizations scheduled for installation, and DOT plans to install DAFIS in the remaining 3 organizations by 1993. Installation occurs when all of DAFIS' functioning accounting capabilities become available to an organization. Appendix I provides additional information on DAFIS' installation status. By 1993, when DAFIS will be

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<sup>1</sup>Fund control refers to ensuring that spending limits are not exceeded by providing the capability to plan and track funds used at various levels. An Anti-Deficiency Act violation would occur if spending limits were exceeded.

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installed in the remaining three organizations, DOT will operate four accounting systems. In addition to DAFIS, the USCG will continue to operate three separate accounting systems. As of July 1992, DOT had not determined the best approach for addressing needs met by the separate USCG accounting systems and if and when these systems would be replaced by DAFIS.

DOT's 1987 plan estimated completing installation in 1991 at an estimated cost of \$17.6 million. Estimates included software modifications to FAA's system and equipment changes. Software modifications included improvements to the collection and fund control components of FAA's system. Equipment changes included hardware to increase processing capacity and additional computer terminals so that eventually over 1,500 users could use the system from remote locations.

In 1988 DOT established a project management organization within the Office of the Secretary of Transportation (OST) to complete DAFIS' development and installation and guide future efforts. In 1989 DAFIS' developers, in conjunction with a departmental steering committee comprising accounting managers throughout DOT, revised the initial plans for DAFIS. They decided on an approach to first complete DAFIS' critical accounting components and defer other information needs until DAFIS was installed departmentwide. The revised plan estimated that the installation of DAFIS' accounting components would be completed in 1992 at an estimated cost of \$23.4 million. Most of the cost increases were to address accounting requirements not in the initial plan and to design nearly 500 new computer programs. For example, almost \$3 million of the increase from the 1987 cost estimate can be attributed to the development of new computer programs for tracking disbursement documents and for meeting OST's accounting needs. In addition to increasing cost, addressing OST's needs required developers to shift resources from DAFIS' installation and pushed back the schedule.

A 20-month slip (Aug. 1991 to Apr. 1993) in the milestones established by the 1989 plan occurred at the Federal Transit Administration (FTA) largely because DAFIS cannot track prior-year recoveries of obligations.<sup>2</sup> DOT management identified this DAFIS problem as a material deficiency. FTA officials said that, because FTA recovers nearly \$100 million annually, they did not want to give up a capability that existed in their current accounting system. Because of the large amount of computer-programming effort to

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<sup>2</sup>Prior-year recoveries of obligations are funds from unexpired appropriations that agencies have available to spend. They can result from adjustments in obligations and refunds of payments.

address prior-year recoveries, DAFIS' developers did not plan to make the changes until all operating administrations were using DAFIS. As of July 1992, plans were to convert FTA's accounting system to DAFIS in conjunction with the completion of work needed to track prior-year recoveries. DAFIS' developers estimated that the programming effort needed increased their 1989 cost estimate by about \$650,000. They anticipate completing the changes by April 1993, and FTA will convert its accounting system to DAFIS at that time.

As of July 1992, plans were to complete installing DAFIS in 10 of DOT's organizations in June 1993, at an estimated cost of \$26.4 million. Much of the \$3 million cost increase from the developers' 1989 estimate is due to the conversion of the Transportation Systems Center's (TSC) accounting system to DAFIS. Developers said that only in 1991 was the decision made to replace TSC's system with DAFIS.

The cost increases over DOT's initial 1987 estimate also include the cost of contractor support, training, and travel expenses paid by OST to help some administrations convert their systems to DAFIS. However, cost estimates do not include contractor support and in-house expenses (e.g., personnel salaries) that are directly paid by the administrations. For instance, Federal Railroad Administration (FRA) and Federal Highway Administration officials estimated that contractor support and in-house expenses paid by their administrations combined will total over \$3 million.

## Progress in Achieving DAFIS' Goals

DOT has made progress in achieving the first two goals for DAFIS by consolidating its many accounting systems and improving its accounting processes for making payments and collecting debts. Although DOT plans to improve the preparation of required accounting reports and enhance information safeguards, certain accounting issues still need to be resolved. Limitations in several areas have obstructed DOT's achievement of DAFIS' third goal of providing better financial information. For example, DAFIS does not provide useful reports to managers for assessing spending trends on long-term projects and pinpointing problems in operations, such as identifying units that cause payment delays. Addressing DAFIS' limitations will increase costs and require revisions to how financial data are processed into DAFIS. However, DOT does not have plans on when or how to address these limitations.

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## Improvements Made

DAFIS has enabled DOT to reduce its accounting systems from 14 in 1987 to 7 in July 1992. In addition, officials stated that DAFIS' installation has also eliminated the need for six other subsidiary accounting systems and has enabled some DOT administrations to eliminate district accounting offices. DAFIS has also improved DOT's payment and collection capabilities. Previous accounting systems, such as some of USCG's, were labor-intensive and lacked the automated capability to provide information that would allow for timely payments and effective debt collection. DAFIS handles over 5,000 payments daily, and its capabilities include features to ensure that payments are made on time and that discounts are taken when appropriate. Such payment features were needed because the 1982 Prompt Payment Act (31 U.S.C. 3901-3907) requires federal agencies to pay interest penalties on late payments. DAFIS' collection capabilities include automatic bill preparation and late notices.

Most DOT accounting managers we spoke with were generally satisfied with DAFIS' capabilities. A major area of improvement that accounting managers cited was DAFIS' general ledger, which is a list of accounts that provides a consolidated source of information for preparing accounting reports on budgeted resources, assets, and liabilities required by OMB and the Department of the Treasury. With one transaction, such as recording an obligation (placing an order for goods), DAFIS has the capability to update all appropriate accounts in the general ledger. Our previous review of the Air Force's financial systems found that inaccurate accounting reports resulted when systems were not capable of updating accounts with one transaction.<sup>3</sup> DAFIS' developers also said that they have had plans in place since fiscal year 1989 to automate the preparation of certain OMB- and Treasury Department-required financial reports. These reports are now prepared manually. By the end of fiscal year 1992, DAFIS' developers plan to improve DAFIS' capability so that operating administrations can begin generating automated reports from DAFIS' general ledger.

Another planned improvement addresses the need to safeguard information. The guidance given in OMB Circular A-130 concerning the management of information resources requires agencies to provide reasonable continuity of data processing support (e.g., back-up site processing) such as in the event that a catastrophic disaster disrupts operations and destroys data. DOT's disaster recovery plan called for back-up processing, but DOT had not provided for a back-up site. As of July

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<sup>3</sup>Financial Audit: Aggressive Actions Needed for Air Force to Meet Objectives of the CFO Act (GAO/AFMD-92-12, Feb. 19, 1992).

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1992, DOT officials informed us that DAFIS will be operated by a new contractor in August 1992, at which time a back-up site will be available.

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### Certain Accounting Data Cannot Be Tracked

As discussed previously, DAFIS cannot track prior-year recoveries of obligations which agencies still have available to spend. Also, DAFIS does not accumulate cost information, which USCG needs to bill internal customers for the cost of equipment and supplies drawn from inventories and for maintenance provided. As a result, USCG still operates three additional accounting systems for its aircraft and ship supply and maintenance activities even though DAFIS has been installed at the agency. In fiscal year 1992, these accounting systems controlled about \$243 million of USCG's estimated annual appropriation and maintained information on inventories valued at about \$610 million. DAFIS' developers recognized that DAFIS did not meet USCG's needs for cost information but deferred addressing them. During 1988/1989, when DOT was preparing to replace USCG's systems with DAFIS, USCG was also reorganizing and consolidating its financial operations. DAFIS' developers believed that addressing these needs during such a massive reorganization would have been a very difficult endeavor for both organizations. As of July 1992, DOT had not determined the best approach for addressing USCG's needs for cost information and thus had not identified the costs and time needed to address them.

### Impediments Affecting DAFIS' Information Goal

DOT's ability to use DAFIS to generate financial information is limited. Hindering DAFIS' financial information goal are limitations associated with (1) maintaining detailed spending information on long-term projects, (2) generating useful reports to evaluate spending trends and to oversee performance in such areas as multimillion dollar payment operations, and (3) processing financial data into the system on a timely basis. For instance, limited reporting capabilities have affected budget managers' abilities to answer congressional requests concerning FAA's air traffic control and airway facilities modernization projects. Such projects as AAS, which at the current estimated cost of \$5.1 billion is FAA's largest project to modernize the nation's air traffic control system, have been plagued with cost increases and schedule delays. When congressional subcommittees asked FAA for a spending report on selected projects, budget officials spent over 8 weeks and an extensive manual effort gathering information from DAFIS.

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While DOT is working to improve FAA's project management reports, other limitations affect the timeliness and usefulness of DAFIS information. The following paragraphs discuss these limitations, their possible costs to fix and schedule implications, and DOT's efforts to address them.

- DAFIS' capability to maintain detailed financial data on projects is limited. DOT is impeded from achieving its financial information goal because DAFIS is limited in providing users the on-line capability to access detailed spending information on DOT's programs and projects. When DOT selected FAA's system as the basis for DAFIS, the Department recognized the necessity to expand the system to maintain an on-line capability to access spending data on DOT's programs and projects. Many of DOT's programs and projects are funded over several years and take years to complete. While DAFIS can provide users with cumulative spending information, users told us that they need detailed historical information showing prior-year spending to meet their project management responsibilities.

DAFIS' developers said that DAFIS does not maintain detailed historical financial information on-line because they believed such a change was not feasible or cost-effective. DAFIS' developers stated that maintaining such detailed financial information on-line could delay the processing of accounting transactions. As an alternative to providing on-line capability, DAFIS' developers provide operating administrations with computer tapes of accounting transactions and believe that this alternative provides users with increased flexibility to generate reports. Providing computer tapes to users can be a cost-effective alternative to meeting users' needs for maintaining historical data. However, additional systems are required to maintain and extract the data.

In addition to its accounting systems, DOT has over 100 subsidiary financial systems. These 100 systems serve many purposes for which DAFIS was not designed, such as providing managers with the capability to manage inventories, property, grants and projects. However, some of these 100 systems are also needed because DAFIS does not maintain historical information. For example, FAA program managers use DAFIS' computer tapes and maintain historical information on multiyear projects on their own separate financial management system. Program managers estimate that the cost of operating this system totals about \$500,000 annually. National Highway Traffic Safety Administration (NHTSA) officials also receive DAFIS' data on computer tape. They told us that, once resources become available, they plan to develop a report-generating system to complement DAFIS.

DAFIS' developers contemplate reviewing all the various systems to see what needs they address, whether fewer systems can meet those needs, and how DAFIS' accounting components can be integrated with these subsidiary systems. Once this effort is completed, DAFIS' developers said they would know if any additional changes would be needed to DAFIS. DOT officials also stated that this effort is vital if they hope to design, prescribe, and promote the use of financial performance measures as indicated by the CFO Act. Such performance data can help managers control current operations and assess progress toward planned objectives. As of July 1992, DOT had not issued any concrete plans for (1) reviewing the many systems to identify the ones that can be eliminated, (2) integrating with DAFIS the many other financial systems that DOT managers use to carry out their duties, and (3) identifying financial performance information.

- DAFIS' reports are limited. DAFIS' limitations in providing useful management reports impede DOT's ability to meet its financial information goal. Officials throughout DOT expressed the view that DAFIS' reports still need improvement. Managers have had to manually prepare reports from DAFIS' information. For example, NHTSA officials told us that they have to make approximately 200 separate inquiries from DAFIS' data before they can manually prepare executive management reports on spending. FRA and USCG officials also said that, to assess payment and collection operations, they have to manually search documents or detailed computer listings.

DAFIS does generate nearly 300 reports. Officials said that many of the reports still do not contain "English language" headings describing the information presented but instead are filled with accounting codes that are difficult to understand. While DAFIS' developers have provided users' with descriptions of the codes, they have deferred correcting all the reports until all administrations are using DAFIS. In addition to more understandable reports, reports are needed to monitor operations, such as management reports identifying units that are continually late in submitting payment documents. DAFIS' developers agreed that late submission is a major reason for payment penalties in DOT and that a report identifying delinquent units could become a good operational performance tool. DAFIS also lacks reports to identify vendors who have been possibly overpaid. USCG managers said that such reports could help them better control their new centralized payment operations. Stopping overpayment is especially important at USCG because a 1991 DOT Inspector General audit found that procedural problems allowed overpayments to vendors totaling about \$1.6 million on payments exceeding \$1 billion.

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Although many reporting problems have been identified by DAFIS' users, not all reporting problems have reached the developers. For instance, the Congress has been concerned that FAA's Research, Engineering and Development (RE&D) funds (about \$200 million annually) were not being targeted to long-term research projects. In 1992 we testified that FAA does not routinely track spending on long-term research, thus impairing congressional oversight.<sup>4</sup> Even though DAFIS' design allows for this information to be collected, a management report would have to be generated. FAA's RE&D program manager never pursued using DAFIS because he was concerned that the improvement request would not be acted on.

Operating administration officials also were concerned that their requests for changes were not receiving attention from the system's developers. During our review, DAFIS' developers, in conjunction with accounting officials from the operating administrations, established priorities to address the information and reporting problems (nearly 70) identified by the operating administrations. DAFIS' developers estimated that making the changes could cost between an additional \$500,000 and \$1.7 million.

- **Transaction processing is not timely.** DOT needs to improve transaction-processing steps to get the full benefit of DAFIS' fund control feature and meet its financial information goal. Transaction processing refers to the entire process that organizations follow to authorize and execute financial transactions, such as making requisitions, incurring obligations, and making payments. DAFIS' fund control feature provides budget and program managers with the ability to plan and track spending so they can determine the status of funds prior to entering into financial obligations. According to DOT, one of the major benefits intended by this DAFIS feature was that it would eliminate the need for program managers to maintain separate systems, or "cuff" records. However, according to DAFIS' developers, the accounting offices control the input of transactions into DAFIS and there was little emphasis placed on reviewing the transaction-processing steps needed to ensure that the fund control feature could benefit program managers. Consequently, several administrations operating on DAFIS still maintain separate automated "cuff" systems.

At FAA, NHTSA, and the Research and Special Programs Administration (RSPA), officials said they continue to maintain separate automated systems for fund control, because DAFIS data are not timely. For example,

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<sup>4</sup>Aviation Research: Progress Has Been Made but Several Factors Will Affect Program Success (GAO/T-RCED-92-39, Mar. 10, 1992).

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NHTSA officials told us that it took up to 6 weeks before fund status is updated and recorded in DAFIS. NHTSA officials attributed the problem to the numerous transaction-processing steps required by their administration as the reason for the delays. Officials from two of these three administrations stated that operating their own systems caused them to enter transactions first into their systems and then other technicians, usually in the accounting offices, would enter them again into DAFIS. This duplication further increased the time for entering information into DAFIS. DAFIS' developers told us that one way that they plan to eliminate duplication is to increase the automated interface of data between DAFIS and the various fund control systems. With an automated interface, data would only have to be entered once. Developers said that they anticipate completing this effort by 1995 but had not yet developed cost estimates. As of July 1992, there were no plans to streamline how the various administrations process transactions to enhance the timeliness of data.

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## Conclusions

DOT has made progress toward achieving its first and second goals of consolidating numerous and inefficient accounting systems into DAFIS and correcting accounting weaknesses. Yet, some accounting issues need to be addressed. Moreover, DAFIS' inability to provide managers with useful and timely information to oversee spending on long-term projects and to assess operations has impaired DOT's ability to achieve its third goal of providing managers and the Congress with better financial information. As a result, users have relied on other systems and inefficient practices to meet their needs. DOT is aware of DAFIS' shortcomings. However, DOT has not developed a strategy for addressing these limitations, eliminating duplicate systems, and integrating DAFIS with the Department's other subsidiary financial systems.

Enhancing the usefulness of DAFIS will represent a significant challenge to DOT. By developing a strategy to improve the system, as required by the CFO Act, DAFIS' developers and users alike will have a road map for correcting DAFIS' weaknesses, enhancing management information, and streamlining operations. As an added benefit of such a strategy, DOT and the Congress will be able to oversee cost and schedule changes and assess progress in meeting DAFIS' goals.

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## Recommendations

We recommend that the Secretary of Transportation direct the Department's CFO to include in DOT's financial systems' improvement plans a strategy to (1) correct shortcomings in tracking, reporting, and

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processing financial information and (2) integrate DAFIS with DOT's other systems that provide financial information. This detailed plan should lay out clear objectives, resource estimates, and timetables for implementing changes. We also recommend that the Secretary report to the Congress on the progress made in carrying out DOT's financial systems' improvement plans. Lastly, we recommend that the Secretary advise the Congress during the next budget submission when funds for systems that duplicate DAFIS' fund control features can be eliminated.

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## Agency Comments

We discussed the information in this report with DOT officials from OST, including DAFIS' developers, and with accounting officials from all the operating administrations. These officials generally agreed with the facts presented, and we incorporated their clarifications as appropriate. DOT officials also concurred that a detailed plan was needed to address the factors affecting DAFIS' goals and financial systems integration within DOT. As requested by your offices, we did not obtain written comments from DOT on a draft of this report.

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We performed our review between November 1991 and July 1992 in accordance with generally accepted government auditing standards. Appendix II contains details on our scope and methodology.

We are sending copies of this report to the Secretary of Transportation; the Acting CFO for DOT; the Director, OMB; and other interested parties. We will also make copies available to others on request.

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Please contact us at (202) 275-1000 or (202) 275-8549 if you or your staff have any questions. Major contributors to this report are listed in appendix III.

Sincerely yours,



Kenneth M. Mead, Director  
Transportation Issues  
Resources, Community, and  
Economic Development Division



John W. Hill Jr., Director  
Audit Support and Analysis  
Accounting and Financial  
Management Division

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**Abbreviations**

<b>AAS</b>	<b>Advanced Automation System</b>
<b>AFMD</b>	<b>Accounting and Financial Management Division</b>
<b>CFO</b>	<b>Chief Financial Officer</b>
<b>DAFIS</b>	<b>Departmental Accounting and Financial Information System</b>
<b>DOT</b>	<b>Department of Transportation</b>
<b>FAA</b>	<b>Federal Aviation Administration</b>
<b>FHWA</b>	<b>Federal Highway Administration</b>
<b>FRA</b>	<b>Federal Railroad Administration</b>
<b>FTA</b>	<b>Federal Transit Administration</b>
<b>GAO</b>	<b>General Accounting Office</b>
<b>MARAD</b>	<b>Maritime Administration</b>
<b>MMAC</b>	<b>Mike Monroney Aeronautical Center</b>
<b>NHTSA</b>	<b>National Highway Traffic Safety Administration</b>
<b>OMB</b>	<b>Office of Management and Budget</b>
<b>OST</b>	<b>Office of the Secretary of Transportation</b>
<b>RE&amp;D</b>	<b>Research, Engineering, and Development</b>
<b>RSPA</b>	<b>Research and Special Programs Administration</b>
<b>TSC</b>	<b>Transportation Systems Center</b>
<b>USCG</b>	<b>U.S. Coast Guard</b>

# DOT Administrations and Offices Planned for DAFIS

Table I.1 lists the 10 operating administrations and offices in which the Department of Transportation (DOT) had developed plans for installing the Departmental Accounting and Financial Information System (DAFIS) and those organizations currently operating on DAFIS and not operating on DAFIS. Also included in table I.1 is information on the missions of these organizations and their fiscal year 1992 budget authority. Budget authority refers to the authority provided by law to enter into obligations that will result in immediate or future payments. As of July 1992, 7 of the 10 administrations and offices operated on DAFIS. DOT expects to install DAFIS within the Federal Highway Administration (FHWA) by October 1992, the Federal Transit Administration (FTA) by April 1993, and the Transportation Systems Center (TSC) by June 1993. In addition to using DAFIS, the U.S. Coast Guard (USCG) still operates a separate accounting system for each of its aircraft and ship supply and maintenance activities located at Baltimore, Maryland; Brooklyn, New York; and Elizabeth City, North Carolina.

Figure I.1 shows that the agencies and offices operating under DAFIS account for slightly over 39 percent of DOT's estimated budget authority. Figure I.2 shows that, in fiscal year 1992, DAFIS is estimated to process about 82 percent of DOT's accounting transactions. Figure I.3 compares the initial 1987 and revised 1989 installation plans with the current installation status. The schedule information presented in figure I.3 excludes any additional time needed to address unmet accounting and financial management requirements.

**Appendix I  
DOT Administrations and Offices Planned  
for DAFIS**

**Table I.1: DOT Administrations and  
Offices Planned for DAFIS**

Dollars in millions	
<b>Administrations/offices and missions</b>	<b>FY 92 budget authority</b>
<b>Operating on DAFIS as of July 1992</b>	
<b>Federal Aviation Administration:</b>	
Operates the nation's air traffic control system, regulates safety and commerce.	\$8,873
<b>U.S. Coast Guard<sup>a</sup>:</b>	
Carries out search and rescue, marine law enforcement, safety, and environmental activities.	3,597
<b>Federal Railroad Administration:</b>	
Regulates railroad safety, provides financial aid, and does safety research.	957
<b>Maritime Administration:</b>	
Administers programs that aid the merchant fleet and maintain its defense readiness.	367
<b>Office of the Secretary of Transportation:</b>	
Provides overall direction of DOT and researches national issues.	258
<b>National Highway Traffic Safety Administration:</b>	
Funds programs to reduce traffic deaths, injuries, and losses.	249
<b>Research and Special Programs Administration:</b>	
Studies hazardous material transportation and pipeline safety.	36
<b>Subtotal</b>	<b>14,337</b>
<b>Not operating on DAFIS as of July 1992</b>	
<b>Federal Highway Administration:</b>	
Provides for the construction and upkeep of the nation's highway system.	18,233
<b>Federal Transit Administration:</b>	
Provides assistance for the development of mass transit.	3,767
<b>Transportation Systems Center:</b>	
Directs research on transportation issues.	214
<b>Subtotal</b>	<b>22,214</b>
<b>Total</b>	<b>\$36,551</b>

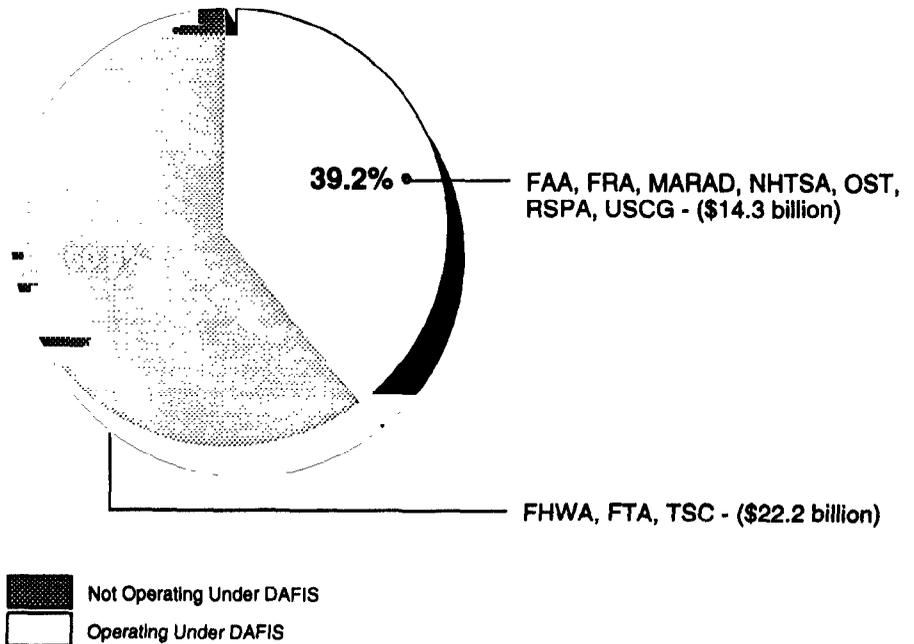
Note: Budget authority is estimated and excludes offsetting receipts with the exception of TSC's \$214 million. FY = fiscal year.

<sup>a</sup>Funds include about \$243 million recorded in three separate USCG accounting systems for aircraft and ship supply and maintenance activities.

Source: GAO, based on Budget of the U.S. Government, Fiscal Year 1993.

**Appendix I  
DOT Administrations and Offices Planned  
for DAFIS**

**Figure I.1: DOT's Fiscal Year 1992  
Funds Tracked and Not Tracked by  
DAFIS**

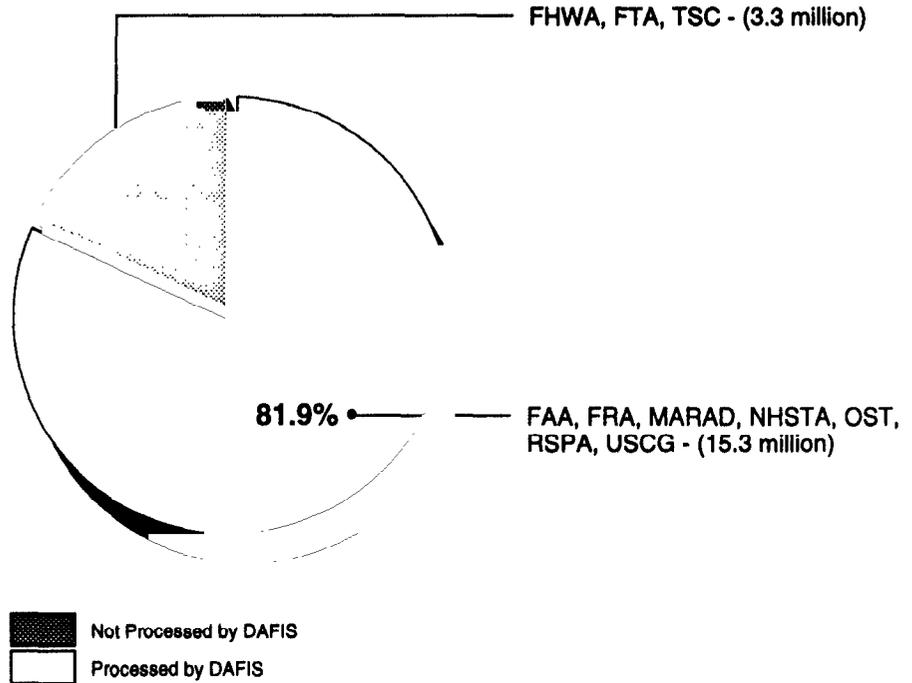


Note: Funds include about \$243 million recorded in three separate USCG accounting systems for aircraft and ship supply and maintenance activities.

Source: GAO, based on DOT data.

**Appendix I  
DOT Administrations and Offices Planned  
for DAFIS**

**Figure I.2: Estimated Number of  
Accounting Transactions Processed  
by DAFIS and Not Processed by DAFIS  
in Fiscal Year 1992**

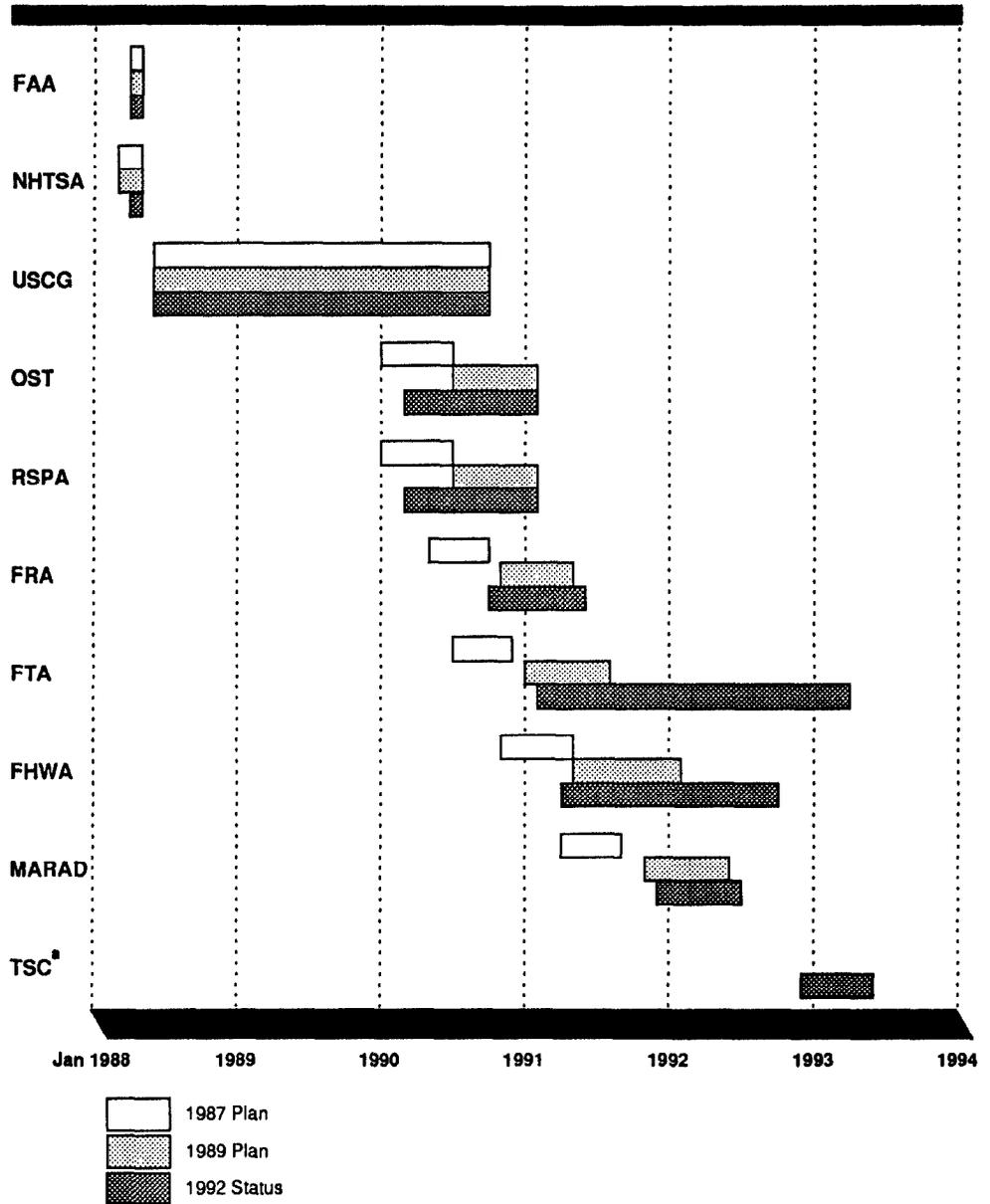


Note: Transactions exclude those processed by three separate USCG accounting systems for aircraft and ship supply and maintenance activities.

Source: GAO, based on DOT data.

**Appendix I  
DOT Administrations and Offices Planned  
for DAFIS**

**Figure I.3: Comparison of 1987 and 1989 Milestones With 1992 DAFIS Installation Status**



Note: Plans exclude additional time needed to address unmet accounting and financial information requirements.

<sup>a</sup>TSC was not included in the original 1987 plan or the revised 1989 plan for installing DAFIS.

Source: GAO, based on DOT data.

# Scope and Methodology

To find out about DAFIS' installation status and costs, we examined and analyzed pertinent system-planning documents, including original and current DAFIS installation schedules, and documents estimating costs. We did not verify historical or projected cost information provided by DOT. We also interviewed DAFIS' developers at the Office of the Secretary of Transportation (OST) located at DOT headquarters, and at Mike Monroney Aeronautical Center (MMAC) in Oklahoma City, which maintains DAFIS. Our questions focused on cost and schedule slippage, requirement changes, and problems affecting DAFIS' installation and operations.

To assess the extent to which DAFIS is achieving its goals, we reviewed design documents and internal studies detailing the system's capabilities. We interviewed development officials and policy, program, budget, and accounting managers at DOT headquarters and field offices. At headquarters, we interviewed officials in all of the operating administrations and at OST. We coordinated with DOT and operating administration liaisons to choose managers who were the most knowledgeable about DAFIS and best represented official views about DAFIS. In the field, we interviewed officials from MMAC and USCG's finance center in Chesapeake, Virginia, which provides centralized financial operations for USCG. We also interviewed officials at the Federal Aviation Administration and the National Highway Traffic Safety Administration's regional offices in Atlanta, Georgia, and USCG's district office in Portsmouth, Virginia. These field offices were selected because their operating administrations have had the longest operational experience with DAFIS. Our interviews concentrated on the (1) system's capabilities, (2) usefulness and reliability of data from a user's perspective, (3) adequacy of installation support, and (4) future plans for DAFIS. We did not evaluate or compare other financial information systems used by federal agencies with DAFIS.

We performed our review between November 1991 and July 1992 in accordance with generally accepted government auditing standards.

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